



GENERAL CONSTRUCTION NOTES

- G1. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY, STATE AND FEDERAL CODES.
- G2. ALL SITE CONSTRUCTION SHALL CONFORM TO THE MOST RECENT EDITION OF THE CITY OF BISMARCK CONSTRUCTION SPECIFICATIONS FOR MUNICIPAL PUBLIC WORKS IMPROVEMENTS AS MODIFIED BY THE ATTACHED PLANS.
- G3. CONTRACTOR MUST BE BONDED BY THE CITY OF BISMARCK FOR ALL CONSTRUCTION IN CITY RIGHT OF WAY OR WHICH CONNECTS TO A CITY UTILITY.
- G4. CONTRACTOR WILL BE REQUIRED TO OBTAIN ALL NECESSARY PERMITS.
- G5. IT WILL BE NECESSARY TO HAVE A PRIVATE ENGINEERING AND/OR TESTING FIRM SET GRADES, DO COMPACTION TESTS AND PREPARE RECORD DRAWINGS FOR THE SEWER & WATER LINES. THE CITY ENGINEERING DEPARTMENT WILL REQUIRE TEST REPORTS AND RECORD DRAWINGS PRIOR TO ACCEPTING THE PROJECT AFTER COMPLETION.
- G6. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS WARNING SIGNS, BARRICADES & NIGHT LIGHTS AT HIS OWN EXPENSE.
- G7. PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERINGS OR OTHER TYPE OF PROTECTION AS NECESSARY TO PREVENT DAMAGE TO EXISTING UTILITIES.

WATERMAIN NOTES

- W1. MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS.
- W2. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT.
- W3. WATERLINES SHALL BE CHLORINATED, PRESSURE TESTED AND FLUSHED.
- W4. ALL REQUIRED TESTING SHALL BE CONSIDERED INCIDENTAL.
- W5. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AT ALL WATER AND SEWER CROSSINGS.
- W6. CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS AND ELEVATIONS OF CONNECTIONS INTO BUILDINGS.
- W7. WATERMAIN STA. 0+75.03: INSTALL 6" WYE, 16 LF 6" WATERMAIN, 6" GATE VALVE & BOX, 4 LF 6" WATERMAIN & 6" HYDRANT; INV. 60.10.
- W8. WATERMAIN STA. 1+24.74: INSTALL 6"x1" TAPPING SADDLE AND CORPORATION STOP; 6" INV. 60.32, INSTALL 2.00 LF 1" WATER SERVICE AND 1" CURB STOP AND BOX; INV. 60.82, INSTALL 23.2 LF 1" WATER SERVICE TO TEMPORARY CAP; INV. 63.50.
- W9. WATERMAIN STA. 1+58.73: INSTALL 6"x1" TAPPING SADDLE AND CORPORATION STOP; 6" INV. 60.60, INSTALL 2.00 LF 1" WATER SERVICE AND 1" CURB STOP AND BOX; INV. 61.10, INSTALL 16.4 LF 1" WATER SERVICE TO TEMPORARY CAP; INV. 62.20.
- W10. WATERMAIN STA. 2+48.71: INSTALL 6"x1" TAPPING SADDLE AND CORPORATION STOP; 6" INV. 61.33, INSTALL 2.00 LF 1" WATER SERVICE AND 1" CURB STOP AND BOX; INV. 61.83, INSTALL 62.8 LF 1" WATER SERVICE TO TEMPORARY CAP; INV. 63.20.

SANITARY SEWER NOTES

- S1. MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS.
- S2. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT.
- S3. SANITARY SEWER MAIN SHALL BE TELEVIEWED.
- S4. ALL REQUIRED TESTING SHALL BE CONSIDERED INCIDENTAL.
- S5. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AT ALL WATER AND SEWER CROSSINGS.
- S6. CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS AND ELEVATIONS OF CONNECTIONS INTO BUILDINGS.
- S7. SANITARY SEWER STA. 0+86.67: INSTALL 6" WYE; INV. 57.13, INSTALL 6" 45° BEND AND 10.83 LF 6" SANITARY SEWER @ 54.017% AND 6" 22.5° VERTICAL BEND AND CLEAN OUT; INV. 62.98, INSTALL 5.00 LF 6" SANITARY SEWER @ 10.400% AND 6" TEMPORARY CAP; INV. 63.50.
- S8. SANITARY SEWER STA. 1+40.69: INSTALL 6" WYE; INV. 58.26, INSTALL 6" 45° BEND AND 23.68 LF 6" SANITARY SEWER @ 1.182% AND 6" CLEAN OUT; INV. 58.54, INSTALL 5.00 LF 6" SANITARY SEWER @ 1.200% AND 6" TEMPORARY CAP; INV. 58.60.
- S9. SANITARY SEWER STA. 2+29.92: INSTALL 6" WYE; INV. 60.14, INSTALL 6" 45° BEND AND 79.10 LF 6" SANITARY SEWER @ 3.641% AND 6" CLEAN OUT; INV. 63.02, INSTALL 5.00 LF 6" SANITARY SEWER @ 3.600% AND 6" TEMPORARY CAP; INV. 63.20.
- S10. MANHOLE SHALL BE DESIGNED TO HAVE 2-2" THICK CONCRETE ADJUSTING RINGS AND CASTING SHALL BE NEENAH R-1733 WITH SOD LID.

TREE PLANTING DETAIL

TYPICAL FOR ALL DECIDUOUS, SINGLE-TRUNK, TREES

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PAVEMENT NOTES

- P1. ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION MATERIALS SHALL CONFORM TO CITY OF BISMARCK SPECIFICATIONS EXCEPT AS MODIFIED HEREIN. AIR CONTENT SHALL BE 5% TO 7% STRENGTH AT 28 DAYS SHALL BE 4000 PSI.
- P2. ISOLATION JOINTS SHALL BE REQUIRED ALONG THE BUILDING, STOPS AND ALL FIXED ITEMS. LEAVE JOINT 3/8" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
- P3. CONSTRUCTION JOINTS SHALL BE PLACED TO COINCIDE WITH CONTRACTION JOINT SPACING. CONSTRUCTION JOINTS SHALL HAVE A 1.5" DIAMETER HALF ROUND KEYWAY OR APPROVED EQUAL.
- P4. MAXIMUM JOINT SPACING SHALL BE 1.5 TIMES THE THICKNESS OF THE PAVEMENT (MEASURED IN INCHES) IN FEET (4" THICK CONCRETE = 6 FOOT JOINT SPACING). LENGTH/WIDTH RATIO OF JOINTED PANELS MAY NOT EXCEED 1.5.
- P5. SUBGRADE PREPARATION SHALL BE REQUIRED UNDER ALL AREAS TO BE PAVED AND SHALL BE 6" THICK AND SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS EXCEPT DENSITY SHALL BE 95% OF ASTM D 698.
- P6. MACRO SYNTHETIC STRUCTURAL FIBERS (MACRO-FIBERS) SHALL CONFORM TO ASTM 1116/C 1116M, TYPE III. DOSAGE SHALL BE AS RECOMMENDED BY THE MANUFACTURER TO ARCHIVE EQUIVALENT PERFORMANCE TO NO. 4 RE-BAR IN CENTER OF SLAB SPACED AT 24" O/C GRID. APPROXIMATELY 4 LBS./CY.
- P7. INSTALL STANDARD CURB AND GUTTER. CITY DETAIL NO. 600-12
- P8. INSTALL COMMERCIAL CONCRETE SIDEWALK. CITY DETAIL NO. 600-02 THICKEN SIDEWALK TO 8" AT DRIVEWAY.
- P9. INSTALL COMMERCIAL 8" CONCRETE DRIVEWAY. CITY DETAIL NO. 600-10
- P10. INSTALL 5" THICK CONCRETE WITH MACRO SYNTHETIC STRUCTURAL FIBERS.
- P11. INSTALL 6" THICK CONCRETE VALLEY GUTTER WITH MACRO SYNTHETIC STRUCTURAL FIBERS.
- P12. INSTALL THICKENED EDGE CONCRETE SIDEWALK WITH MACRO SYNTHETIC STRUCTURAL FIBERS.
- P13. SEE SHEET C2.0 FOR REMOVAL AND REPLACEMENT OF CONCRETE STREET NOTES.

SIGNAGE & PAVEMENT STRIPING

- S1. ALL NON-ADA STRIPING SHALL BE 4" WIDE NON REFLECTORIZED PAINT MEETING THE REQUIREMENTS OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. COLOR SHALL BE YELLOW. TYPICAL FOR ALL STRIPING UNLESS OTHERWISE NOTED.
- S2. ADA STRIPING FOR LANES AND SYMBOLS SHALL BE BLUE PAINT MEETING THE REQUIREMENT OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. PAINT FACE AND TOP OF CURB (6" WIDE) IN FRONT OF ALL HANDICAP STALLS.
- S3. PROVIDE AND INSTALL ADA SIGNS SECURED TO BUILDING.
- S4. PROVIDE AND INSTALL SIGN SECURED TO BUILDING THAT INDICATES "VAN ACCESSIBLE": SIGNS MUST INDICATE "1000 FINE".

5" CONCRETE WITH MACRO-FIBERS

6" CLASS V BASE MATERIAL

6" SURFACE PREPARATION

5" CONCRETE WITH MACRO-FIBERS

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